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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,729	08/08/2006	Naoki Yamaguchi	060594	3977
23850	7590	06/23/2008	EXAMINER	
KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005				CERNOCH, STEVEN MICHAEL
3752		ART UNIT		PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/588,729	YAMAGUCHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	STEVEN CERNOCH	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 August 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-17 is/are rejected.  
 7) Claim(s) 16 and 17 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 08 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/8/2006, 3/10/2008</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Double Patenting***

All claims of this application conflict with the claims of Application No. 10/588,437, Application No. 10/588,779 and Application No. 10/588,758. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

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F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

All claims provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over all of the claims of copending Application No. 10/588,437, Application No. 10/588,779 and Application No. 10/588,758. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the cited applications claim the same apparatus and methodology and only differ through classification.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### ***Allowable Subject Matter***

Claims 16 and 17 would be allowable if rewritten as an independent claim and in such a manner as to overcome the double patenting rejection(s) set forth in this Office

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action by submitting a terminal disclaimer signed by the assignee and fully complying with 37 CFR 3.73(b), and to include all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1, 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffries et al (US Pat No 5,221,050) in view of Coffee et al. (US Pat No 6,595,208).

Re claims 1 and 2, Jeffries et al. shows an electrostatic device (Fig. 7) configured and disposed to electrostatically charge and dispense a liquid composition from a supply to a point of dispense, wherein the device comprises: an actuator (column 10, line 8); a high voltage generator (column 7, lines 5-13) to provide a high voltage; a power source (Fig. 7, 96) to activate said actuator and said high voltage generator; a reservoir (column 5, line 48) to contain the supply of said liquid composition; and a nozzle (column 6, line 57) to dispense the liquid composition, said nozzle being disposed at the point of dispense; and wherein the reservoir is configured to provide a removable cartridge (Fig. 5, 58), said reservoir being deformable according to inner pressure (column 5, line 48).

Jeffries et al. does not show a dispensing unit comprising: a suction pump in immediate upstream relation with the reservoir for supplying the liquid composition from the reservoir, said pump being mechanically connected to said actuator to be driven thereby; an emitter electrode to electrostatically charge the liquid composition, the emitter electrode being electrically connected to said high voltage generator.

However Coffee et al. teaches a dispensing unit comprising: a suction pump in immediate upstream relation with the reservoir for supplying the liquid composition from the reservoir (column 2, lines 55-58 and lines 66-67 to column 3, lines 1-2), said pump being mechanically connected to said actuator to be driven thereby; an emitter

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electrode (abstract, lines 1-12) to electrostatically charge the liquid composition, the emitter electrode being electrically connected to said high voltage generator.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. with the pump and electrode of Coffee et al. to provide a steady flow of fluid (column 2, lines 57-58) and to produce a charged comminuted material (abstract, lines 2-3).

Re claim 10, Jeffries et al. shows wherein said reservoir is shaped to have a planar configuration (Fig. 3, 30) of a general segment of circle defined between a chord and a circumference of an approximate circle which is greater than a circumference of a semicircle, said mouth being disposed at a center of, said chord (Fig. 4, 30).

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffries et al (US Pat No 5,221,050) in view of Coffee et al. (US Pat No 6,595,208) as applied to claim 1 above, and further in view of Kelly et al. (US Pat No 4,380,786).

Re claim 3, neither Jeffries nor Coffee et al. teach wherein said pump is in the form of a gear pump having a pair of gears one of which is formed with a joint for detachable driving connection with said actuator.

However, Kelly et al. does teach a gear pump (column 13, lines 66-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. and pump of Coffee et al. with the gear pump of Kelly et al. for high pressure pumping (column 13, line 68).

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Re claim 4, neither Jeffries nor Coffee et al. teach wherein said dispensing unit comprises a pump unit shaped into a generally flat configuration, wherein said gears are arranged within a thickness of said pump unit with respective rotation axes perpendicular to a plane of said pump unit, said pump unit being formed with a horizontal channel which extends within the thickness of said pump unit to define an inflow path of said liquid composition from the reservoir to the gear pump as well as an outflow path from the gear pump to the nozzle.

However Kelly et al. does teach wherein said dispensing unit comprises a pump unit shaped into a generally flat configuration (Fig. 5, 256), wherein said gears are arranged within a thickness of said pump unit with respective rotation axes perpendicular to a plane of said pump unit, said pump unit being formed with a horizontal channel (32) which extends within the thickness of said pump unit to define an inflow path of said liquid composition from the reservoir to the gear pump as well as an outflow path (260) from the gear pump to the nozzle.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. and pump of Coffee et al. with the gear pump of Kelly et al. for high pressure pumping (column 13, line 68).

Claims 5-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffries et al (US Pat No 5,221,050) in view of Coffee et al. (US Pat No 6,595,208) as applied to claim 1 above, and further in view of Adams et al. (US Pat No 5,512,228).

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Re claims 5 and 6, Jeffries et al. shows said reservoir comprises a mouth for connecting with said fitment (Fig. 1, 22) but does not teach wherein said dispensing unit comprises a plug to be inserted into a fitment and that they are detachable.

However Adams et al. does teach wherein said dispensing unit comprises a plug (Fig. 1, 12) to be inserted into a fitment (11) and that they are detachable.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. with the plug/fitment of Adams et al. for a tamper evident seal (column 1, lines 35-40).

Re claims 7-9, Jeffries et al. does not teach wherein said fitment and plug are molded to give a first section for welding connection with said reservoir and a second section for welding connection with said plug, wherein said first and second sections are molded from different plastic materials so as to be compatible respectively with the materials forming said reservoir and said plug.

However Adams et al. does teach wherein said fitment and plug are molded integrally (abstract, lines 3-7) to give a first section for welding connection (Fig. 8, 67) with said reservoir and a second section for welding connection (69) with said plug, wherein said first and second sections are molded from different plastic materials so as to be compatible respectively with the materials forming said reservoir and said plug.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. with the

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plug/fitment welds of Adams et al. to achieve the necessary joint (column 7, lines 22-25).

Re claim 11, Jeffries et al. shows wherein said fitment is provided with a valve and is cooperative therewith to establish a feed passage from said reservoir to said plug for feeding said liquid composition from within said reservoir to said dispensing unit, said valve configured to open and close said feed passage for regulating a supply of said liquid composition (column 3, lines 16-18).

Re claim 12, Jeffries et al. shows wherein said fitment is configured to move relative to said plug between an interim position in which said valve is kept closed and a ready-to-use position in which said valve is actuated by said plug to open (column 7, lines 29-31).

Re claim 13, Jeffries et al. does not teach wherein said fitment has a first catch which comes into a latching engagement with said dispensing unit in said interim position, and a second catch which comes into a latching engagement with said dispensing unit in said ready-to-use position.

However Adams et al. does teach wherein said fitment has a first catch (Fig. 8, 61) which comes into a latching engagement with said dispensing unit in said interim position, and a second catch (62) which comes into a latching engagement with said dispensing unit in said ready-to-use position.

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Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. with the plug/fitment catches of Adams et al. for a tight fit (column 6, lines 64-65).

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeffries et al (US Pat No 5,221,050) in view of Coffee et al. (US Pat No 6,595,208) upon further view of Adams et al. (US Pat No 5,512,228) as applied to claim 11 above, and further in view of Urano et al. (US Pub No 2003/0002995).

Re claim 14, neither Jeffries nor Coffee et al. teach wherein said fitment has a barrel for detachably receiving therein said plug, said barrel having an open end at which said plug communicates with said feed passage and which is surrounded by a rim, said valve having an elastically deformable valve membrane which is normally pressed held against said rim to seal said open end; said valve membrane having a plurality of vents which are formed in a portion corresponding outwardly of said rim so as to be normally isolated from said plug by said rim, said valve membrane being elastically deformed, in response to being pressed by said plug, to give a clearance between the valve membrane and the rim, thereby opening said feed passage for allowing the supply of the liquid composition from within the reservoir to the plug through the vents and the clearance.

However, Adams et al. teaches wherein said fitment has a barrel (Fig. 16, 34e) for detachably receiving therein said plug, said barrel having an open end at which said plug communicates with said feed passage and which is surrounded by a rim (33e),

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said valve having an elastically deformable valve membrane (66e) which is normally pressed held against said rim to seal said open end while Urano et al. teaches said valve membrane having a plurality of vents which are formed in a portion corresponding outwardly of said rim so as to be normally isolated from said plug by said rim, said valve membrane being elastically deformed, in response to being pressed by said plug, to give a clearance between the valve membrane and the rim, thereby opening said feed passage for allowing the supply of the liquid composition from within the reservoir to the plug through the vents and the clearance (paragraph 0023).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. with the plug/fitment barrel and membrane of Adams et al. for an extended path of diffusion (column 7, line 41) and the vents present in the membrane of Urano et al. to prevent wrinkling in the membrane (paragraph 0024).

Re claim 15, neither Jeffries nor Coffee et al. teach wherein said barrel is formed with a recessed bevel which is located at a portion outwardly of said rim and is covered by said valve membrane, said vents being formed in correspondence with said recessed bevel.

However Adams et al. teaches a recessed bevel (Fig. 16, 33e) covered by said valve membrane (66e) while Urano teaches said vents (Fig. 17a, 13).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the sprayer of Jeffries et al. with the

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plug/fitment barrel and membrane of Adams et al. for an extended path of diffusion (column 7, line 41) and the vents present in the membrane of Urano et al. to prevent wrinkling in the membrane (paragraph 0024).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN CERNOCH whose telephone number is (571)270-3540. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/S. C./

Examiner, Art Unit 3752

/Len Tran/

Supervisory Patent Examiner, Art Unit 3752